

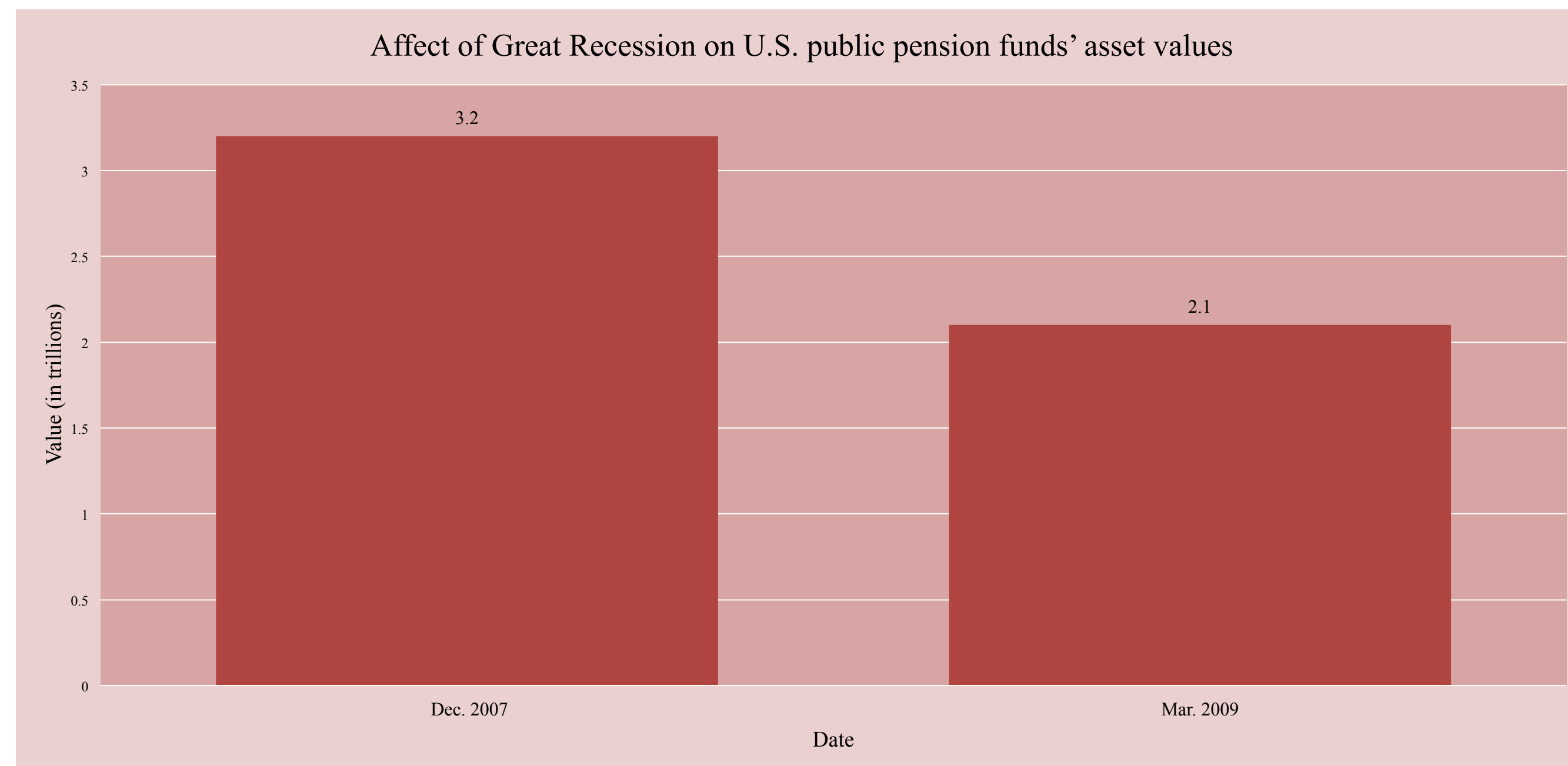


(“13th Non-Volatile”).

Modeling the effect of discount rate assumptions and funding levels on the Minnesota State Retirement System defined benefit plans

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Introduction



In 2010, reform passed to reduce Minnesota public pension liabilities by \$55 million each year (“2010”).

Methods

- Created a funding model to evaluate the effects of discount rate assumptions and funding percentages on MSRS defined benefit plans in 45 years (when current college graduates are assumed to reach retirement).
- Each funding source and expenses treated as a separate 45-year geometrically increasing annuity.
- User can set annual rates of increase for each annuity, the discount rate, and the funding percentage.
- Net present value (NPV) is the sum of present value of plan assets and funding annuities less present value of expense annuity.

Results

Table 1. 7.5% return rate, 10-year avg funding rate, baseline

Plan	NPV
General Plan	\$19,931,827
State Patrol Plan	\$1,113,132
Correctional Plan	\$618,566
Judges Plan	\$(167,025)

Table 2. 7.0% return rate, 10-year avg funding rate, change from baseline

Plan	Change in NPV
General Plan	\$1,221,671
State Patrol Plan	\$120,779
Correctional Plan	\$(25,688)
Judges Plan	\$(39,502)

Table 3. 7.5% return rate, 50% funding rate, change from baseline

Plan	Change in NPV
General Plan	\$(1,201,834)
State Patrol Plan	\$(359,186)
Correctional Plan	\$(293,355)
Judges Plan	\$(86,995)

Conclusion

- MSRS has a responsibility to stakeholders to set realistic discount rate assumptions.
- Minnesota legislature should pay its actuarially determined employer contribution (ADC) in full each year.
- Prioritize funding plans to pay future benefits promised to current and former employers.
- Active employees should contribute to their own future benefits and state governments should allocate funds each year to cover the benefits accrued in that year.
- Intergenerational cost equity makes budgeting easier.



(“Minnesota State Retirement System”).

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